



National Certificate of Educational Achievement  
TAUMATA MĀTAURANGA Ā-MOTU KUA TAEA

## Internal Assessment Resource

### Digital Technologies Level 1

This resource supports assessment against:

Achievement Standard 91081v1

Implement basic procedures for servicing a personal computer system

**Resource title: PC Repair**

4 credits

Student Name: .....

*I declare that the material I have submitted for this unit or achievement standard is my own work  
and that I had no outside help from others in completing it.*

..... (student to sign)

Comments: .....

.....  
.....

☐ Not Achieved   ☐ Achieved   ☐ Merit   ☐ Excellence

#### DEPARTMENT USE ONLY

Internal Moderation Grade: \_\_\_\_\_ Signed: \_\_\_\_\_ Date: \_\_\_\_\_

*If your grade differs from the mark given by the teacher, fill in the 'internal moderation' report.*



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## Student instructions

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### Introduction

This achievement standard requires you to skilfully and efficiently repair a personal computer system using appropriate procedures.

You will be assessed on how successfully you repair the personal computer to meet the specifications given, and on how you work. Independence, accuracy, and efficiency, will be taken into account.

You need to carry out and document testing. You also need to diagnose and troubleshoot given installation and configuration faults in the system to ensure the repaired computer meets the requirements of the specifications given in the scenario.

This is an **individual assessment** activity. You have **5 weeks** in-class and out-of-class time to complete this standard. Your work must be submitted for marking by **Friday the 22nd of August**. Due to the nature of the task, there will be no re-assessment opportunity for this standard.

### Scenario

A client has delivered a box containing computer components as a result of his friend attempting to repair his home computer because it had been malfunctioning. The symptoms of the malfunction were:

- irregular rebooting
- unknown screen blackouts
- inconsistent and incorrect keyboard input
- corrupted data recoveries (*for example, when opening a Word file, standard text would not be displayed and standard Ascii characters would fill the screen instead*)
- freezing (*the client rebooted the computer and received three long beeps and the computer froze and would not boot up and allow access to his data*)

### Specifications

The client has requested you repair his computer so it:

- correctly reboots
- responds appropriately to all inputs
- opens files in the form they were saved
- does not freeze
- installs the latest version of device drivers
- installs and automatically updates Microsoft Office software
- saves all office applications to an identified file location

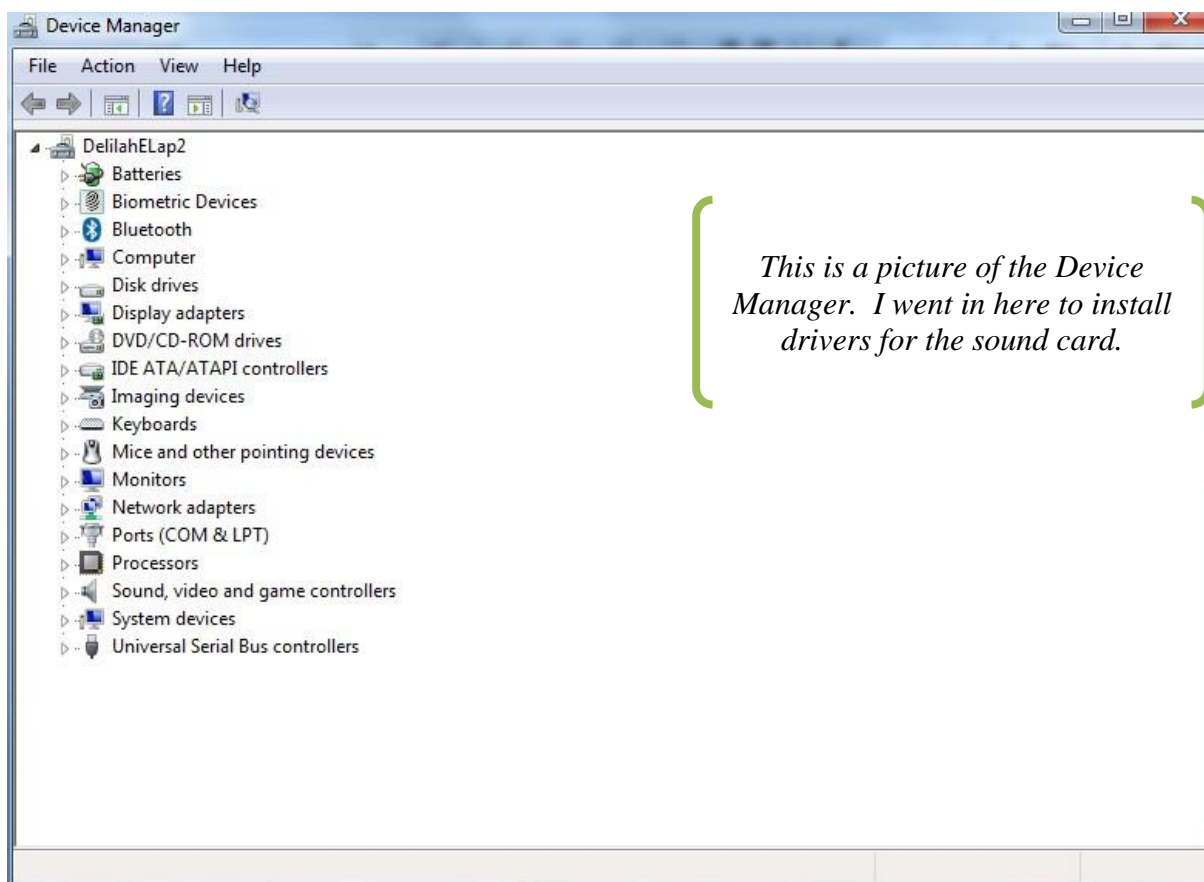


## Task

1. Review the standard procedures and **repair the personal computer system** to meet the given specifications.
2. Document the process of you assembling a personal computer, including hardware, software and peripherals in an **Installation Log**. It should show evidence of the steps you took to resolve the problems. *e.g. photographs, screen dumps, annotated notes and printouts. Refer to Appendix A for an example.*
3. Complete the **Repair Log** below while diagnosing, testing and troubleshooting the faults. *Refer to Appendix B.*
4. Complete the **Test Checklist** in Appendix C:
5. Hand in your documentation including:
  - Installation Log
  - Repair Log
  - Test Checklist



## Appendix A – Installation Log:





## Appendix B - *Repair Log:*

To repair the personal computer I had to do the following:

<p><b>1. <i>Ensure the system booted correctly.</i></b></p> <p>The problem(s) I identified were...</p> <p>The way I fixed these was...</p>	
<p><b>2. <i>The system responded to all inputs.</i></b></p> <p>The problem I identified was...</p> <p>The way I fixed this was...</p>	
<p><b>3. <i>Files open automatically in the correct application for its file type.</i></b></p> <p>The problem I identified was...</p> <p>The way I fixed this was...</p>	
<p><b>4. <i>Install the correct device driver.</i></b></p> <p>The problem I identified was...</p> <p>The way I fixed this was...</p>	
<p><b>5. <i>Install an application.</i></b> The problem I identified was...</p> <p>The way I fixed this was...</p>	

## Appendix C – *Test Checklist:*

I have tested...	Tick
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1. All drivers are installed correctly through the Device Manager	
Describe what you did:	
2. The printer is operating correctly by printing a word document	
Describe what you did:	
3. Microsoft Word runs correctly by saving a file to the c:\	
Describe what you did:	

## Assessment schedule: Digital Technologies 91081 PC Repair

Evidence/Judgements for Achievement	Evidence/Judgements for Achievement with Merit	Evidence/Judgements for Achievement with Excellence
<p><b>The students can implement basic procedures for servicing a personal computer system.</b> The student can:</p> <ul style="list-style-type: none"> <li>follow standard procedures for installing and configuring hardware, software and peripherals of a personal computer system</li> <li>undertake and document a range of appropriate testing procedures to demonstrate the system meets the requirements of a specified personal computer system.</li> <li>diagnose and troubleshoot to identify and resolve given installation and configuration faults in a system.</li> </ul> <p>For example:</p> <p><i>The student documented assembling a working computer from the collection of parts presented using standard best practice procedures and ensuring that the computer met the client's requirements</i></p> <p><i>All device driver, printer driver and applications were installed correctly.</i></p> <p><i>The student was able to resolve the five teacher induced faults.</i></p> <ul style="list-style-type: none"> <li><i>an internal cabling fault</i></li> <li><i>an improperly installed card (RAM, video, or NIC).</i></li> <li><i>incorrectly configured BIOS</i></li> <li><i>a basic OS installation fault (e.g. no device</i></li> </ul>	<p><b>The students can skilfully implement basic procedures for servicing a personal computer system.</b> The student can:</p> <ul style="list-style-type: none"> <li>follow standard procedures for installing hardware, software, and peripherals of a personal computer system, showing accuracy, and independence</li> <li>diagnose and troubleshoot a system to identify and resolve given installation and configuration faults, showing accuracy and independence.</li> </ul> <p>For example:</p> <p><i>The student demonstrated a high level of competency in all tasks, requiring minimal direction and supervision.</i></p> <p><i>They were familiar with all of the installation and testing procedures and confidently diagnosed and resolved the given installation and configuration faults.</i></p> <p><i>The documentation produced by the student was concise, well-organised, and well-presented.</i></p> <p><i>They completed all items in each task in a logical order and their workspace was kept tidy and well organised.</i></p> <p><i>The student was able to implement a diagnostic and troubleshooting procedure that identified and resolved all the faults with a minimal amount of direction and assistance.</i></p>	<p><b>The students can efficiently implement basic procedures for servicing a personal computer system.</b> The student can:</p> <ul style="list-style-type: none"> <li>diagnose and troubleshoot a system to identify and resolve given installation and configuration faults in a manner that is economical in time, effort and resources For example:</li> </ul> <p><i>The student located and resolved all faults quickly and accurately and in a straightforward manner (not using trial and error or googling errors on the internet).</i></p> <p><i>The student was competent in all tasks, requiring no direction from their peers or supervisor.</i></p> <p><i>The student knew the content and its application to the problems presented, for example:</i></p> <ul style="list-style-type: none"> <li><i>the student interpreted the BEEP codes as being a RAM error without reference to any other assistance (e.g. manuals)</i></li> <li><i>the student followed correct procedures for ESD and handling to ensure this new stick of RAM was not damaged.</i></li> </ul> <p><i>When an application configuration file was noted as being faulty, the error was detected and corrected with minimal effort (e.g. antivirus updates were sourced from the correct location).</i></p> <p><b>This description relates to only part of what is</b></p>

<p>driver)</p> <ul style="list-style-type: none"> <li>• a system management software fault (e.g. Antivirus not configured to regularly update to the correct source for program updates or a file not opening in the correct application).</li> </ul> <p>The student produced evidence of their resolution of these faults, such as screen dumps and annotated photographs.</p> <p>To achieve the above results, the student needed prompting from their teacher and peers about some details. For example, the student identified that BEEP codes were indicating an error but they had to ask about checking their interpretation of the BEEP code.</p> <p>This description relates to only part of what is required, and is indicative only.</p>	<p>This description relates to only part of what is required, and is indicative only.</p>	<p>required, and is indicative only.</p>
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Final grades will be decided using professional judgement based on a holistic examination of the evidence provided against the criteria in the Achievement Standard.